RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/03/496D

Source: 17W/6

Date Processed by STIC: 12-2-04

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IFW16

RAW SEQUENCE LISTING

DATE: 12/02/2004

PATENT APPLICATION: US/10/031,496D

TIME: 14:41:47

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      5 <120> TITLE OF INVENTION: Cellobiohydrolase I Gene and Improved Variants
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C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/031,496D
C--> 9 <141> CURRENT FILING DATE: 2002-01-14
     9 <160> NUMBER OF SEQ ID NOS: 96
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85 Val Val Ile Asp Ala Asn Trp Arg Tr	
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89 Thr Asn Cys Tyr Asp Gly Asn Thr Tr	5 Ser Ser inr Leu Cys Pro Asp 75 80
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94 85	90 95
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104 gcg agc gac acg acc tac cag gaa t	
105 Ala Ser Asp Thr Thr Tyr Gln Glu P 106 130 135	140
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PATENT APPLICATION: US/10/031,496D TIME: 14:41:47

DATE: 12/02/2004

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161 Ala Glu Phe Gly Gly Ser Ser Phe Ser Asp Lys Gly Gly Leu Thr Gln 162 355 360 360 365 365 365 365 365 365 365 365 365 365 365 366 370 375 375 375 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380 380			~~~	++-		~~~	+ 00	tat	++0		a a a	224	aaa	aaa		act	cac	1104
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184 cct agc ggc ggc aac cct ccc ggc gga aac ccg cct ggc acc acc acc 185 185 Pro Ser Gly Gly Asn Pro Pro Gly Gly Asn Pro Pro Gly Thr Thr Thr 186 188 450 455 188 acc cgc cgc cca gcc act acc act gga agc tct ccc gga cct acc cag 189 Thr Arg Arg Pro Ala Thr Thr Thr Gly Ser Ser Pro Gly Pro Thr Gln 190 465		Val	Thr		Ser	Asn	шe	ьуs		GIĀ	Pro	тте	GIA		Thr	GIY	Asn	
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188 acc cgc cgc cca gcc act acc act gga agc tct ccc gga cct acc cag 189 Thr Arg Arg Pro Ala Thr Thr Thr Gly Ser Ser Pro Gly Pro Thr Gln 190 465 470 475 480				GIY	GLY	Asn	Pro		Gly	GIY	Asn	Pro		GIY	Thr	Thr	Thr	
189 Thr Arg Arg Pro Ala Thr Thr Gly Ser Ser Pro Gly Pro Thr Gln 190 465 470 475 480																		
190 465 470 475 480			_	_		_					_							1440
			Arg	Arg	Pro	Ala		Thr	Thr	Gly	Ser		Pro	GLY	Pro	Thr		
100 tot dag tag dag dag tag dag dat att dag tag agg dag dag agg dtg																		
																		1488
193 Ser His Tyr Gly Gln Cys Gly Gly Ile Gly Tyr Ser Gly Pro Thr Val			His	Tyr	Gly	Gln	Cys	Gly	Gly	Ile	Gly	Tyr	Ser	Gly	Pro		Val	
194 485 490 495	194					485					490					495		

RAW SEQUENCE LISTING DATE: 12/02/2004 PATENT APPLICATION: US/10/031,496D TIME: 14:41:47

																•	
196	tgc	qcc	aqc	qqc	aca	act	tqc	caq	qtc	ctq	aac	cct	tac	tac	tct	caq	1536
	Cys	_	_				_	-	_	_							
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	tgc ctg taa agctcc 1551 Cys Leu																
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	Met					777	77.7	T1.	Cor	71-	Dho	Tou	717	Thr	ת 1 ת	Ara	
		тут	Arg	цуѕ		нта	vai	TIE	per		Pile	пеп	Ата	TILL	15	Arg	
213		al	0	77.	5	ml	T	a1	0	10	mla sa	TT 4 ~	D-00	Drag		mb	
	Ala	GIII	ser		Cys	1111	reu	GIII		GIU	1111	HIS	PIO		ьец	1111	
217		a1	T	20		0	a1	a1	25	G	ml	a 1	~1	30	~1	0	
	Trp	GIN		Cys	ser	ser	GIY	_	Thr	Cys	Thr	GIN		Thr	GIY	ser	
221		**- 7	35	3	3 .7 -	3		40	m	m)	TT 2 -	7.7 -	45	7	0	a	
	Val		TTE	Asp	Ala	Asn	_	Arg	Trp	Thr	HIS		Thr	Asn	ser	ser	
225		50	~			~ 1	55	m1.		a		60	.	~	D		
	Thr	Asn	Cys	Tyr	Asp	_	Asn	Tnr	Trp	ser		Thr	ьeu	Cys	Pro	_	
	65	~7		~		70	_	~	~	_	75	~7	~ 7		m .	80	
	Asn	Glu	Thr	Cys		Lys	Asn	Cys	Cys		Asp	GIY	Ala		_	Ala	
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237				100			_	_	105	7		_	_	110	_		*
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281			275					280					285				
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285		290					295					300					
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RAW SEQUENCE LISTING DATE: 12/02/2004
PATENT APPLICATION: US/10/031,496D TIME: 14:41:47

```
289 305
                                            315
292 Tyr Val Gln Asn Gly Val Thr Phe Gln Gln Pro Asn Ala Glu Leu Gly
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296 Ser Tyr Ser Gly Asn Glu Leu Asn Asp Asp Tyr Cys Thr Ala Glu Glu
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300 Ala Glu Phe Gly Gly Ser Ser Phe Ser Asp Lys Gly Gly Leu Thr Gln
           355
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304 Phe Lys Lys Ala Thr Ser Gly Gly Met Val Leu Val Met Ser Leu Trp
                            375
308 Asp Asp Tyr Tyr Ala Asn Met Leu Trp Leu Asp Ser Thr Tyr Pro Thr
                                            395
309 385
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312 Asn Glu Thr Ser Ser Thr Pro Gly Ala Val Arg Gly Ser Cys Ser Thr
316 Ser Ser Gly Val Pro Ala Gln Val Glu Ser Gln Ser Pro Asn Ala Lys
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317
320 Val Thr Phe Ser Asn Ile Lys Phe Gly Pro Ile Gly Ser Thr Gly Asn
324 Pro Ser Gly Gly Asn Pro Pro Gly Gly Asn Pro Pro Gly Thr Thr
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328 Thr Arg Arg Pro Ala Thr Thr Gly Ser Ser Pro Gly Pro Thr Gln
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332 Ser His Tyr Gly Gln Cys Gly Gly Ile Gly Tyr Ser Gly Pro Thr Val
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336 Cys Ala Ser Gly Thr Thr Cys Gln Val Leu Asn Pro Tyr Tyr Ser Gln
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370 <212> TYPE: DNA
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373 <220> FEATURE:
374 <223> OTHER INFORMATION: Primer for PCR
376 <400> SEQUENCE: 8
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RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/031,496D

DATE: 12/02/2004 TIME: 14:41:48

Input Set : A:\seq 4 99-45.ST25.txt

Output Set: N:\CRF4\12022004\J031496D.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29
Seq#:30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53
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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/031,496D

DATE: 12/02/2004 TIME: 14:41:48

Input Set : A:\seq 4 99-45.ST25.txt

Output Set: N:\CRF4\12022004\J031496D.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date